



# DiggiDitto™ DC896

## Document Camera



## User Manual



## DiggiDitto™ DC896 Document Camera

Thank you for purchasing the Califone® DiggiDitto™ DC896 Document Camera.

We encourage you to visit our website, [www.califone.com](http://www.califone.com), to register your product for its warranty coverage. While you're there, you can sign up to receive our newsletter, download our catalog, and learn more about the complete line of Califone® audio visual products. Our product line includes portable and installed wireless PA systems, multimedia players and recorders, headphones and headsets, computer peripheral equipment, visual presentation products, and language learning materials.

The DiggiDitto™ DC896 Document Camera provides both an interactive learning experience and the capability of acting as a multimedia switcher. Its incredible 12x Optical Zoom allows for viewing amazing detail with a crisp and clear picture. The classroom uses of the DiggiDitto™ DC896 Document Camera will bring a new enthusiasm and long-lasting retention into your learning experience!

Please take the time to read through this instructional manual. The information included will aid you in the optimal operation of your document camera.

## KEY FEATURES

- 1,300,000 pixel resolution
- Base Light 8 ½" x 11"
- Save infinite pictures via USB
- 12x Optical Zoom
- Annotation Feature
- Remote Control

### Control Functions

- |                    |                        |
|--------------------|------------------------|
| Positive/Negative  | Auto Focus             |
| 3 Light Modes      | Freeze Image           |
| Brightness Control | Text and Dynamic Modes |
| Sharpness Control  | Volume Control         |
| White Balance      | Capture Image          |
| Input Source       | Mirror Image           |
| Standby /Resume    | Split Screen           |
| Zoom +/-           | Color to Black & White |
| Focus +/-          |                        |

# IMPORTANT SAFETY INSTRUCTIONS

**ATTENTION:** All safety and operating instructions should be read before operating appliance. All operating and use instruction should be followed when operating the appliance. Heed and adhere to all warnings on the appliance and in the operating instructions. Retain all safety and operating instructions for future reference.

**WATER & MOISTURE**—Do not sue the appliance near water. i.e. bathtub, kitchen sink, laundry tub, wet basement, or swimming pool.

**VENTILATION**—Do not situate the appliance so that its location or position interferes with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or simialr surface that may block the ventilation openings. The appliance should not be placed in a built-in intallation—such as a bookcase or cabinet—that may impede the flow of air through the ventilation openings.

**HEAT**—Situat the appliance away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

**POWER SOURCES**—Connect the appliance only to a power supply type described in the operating instructions or marked on the appliance.

**POLARIZATION or GROUNDING**—Precautions should be taken so that the grounding or polarization means of the appliance are not defeated.

**POWER CORD PROTECTION**—Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**CLEANING**—The appliance should be cleaned only as recommended by the manufacturer. Always unplug before cleaning the device. Use a damp, soft cloth for cleaning Do not use volatile solvent.

**NON-USE PERIODS**—Unplug the appliance pouwer cord from the outlet when left unused for a long period of time.

**OBJECT & LIQUID ENTRY**—Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**DAMAGE REQUIRING SERVICE**—The appliance should be serviced by qualified service personnel when: (A) the power supply cord or the plug have been damaged, (B) objects have fallen or liquids have been spilled into the appliance, (C) the appliance has been exposed to rain, (D) the appliance does not appear to be operating normally or exhibits a marked change in performance, or (E) the appliance has been dropped or the enclosure has been damaged.

**SERVICING**—The user should not attempt to service the appliance beyond the steps described in the operating instructions. For all other servicing refer to qualified service personnel.

**LOCATION**—Place the device on a stable surface to prevent injuries or damage. Do no place in direct sunlight. Keep camera away from acid or alkali gasses. Do not place in humid, dusty, or windy locations. Keep within the recommended environment: Temperature of 0°C–45°C (32°F–113°F) and humidity less than 75 %.

**ABNORMAL FUNCTIONALITY**—If this equipment functions abnormally, such as putting off smoke, smells, or noise, immediately unplug and call for professional assistance.



# DiggiDitto™ DC896 Document Camera

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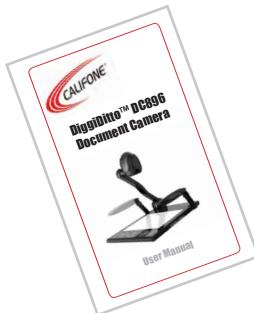
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## PACKAGE CONTENTS

The DiggiDitto™ DC896 Document Camera kit contains the following:



DiggiDitto™ DC896 Document Camera



User Manual



Remote Control



USB Cable



VGA Cable

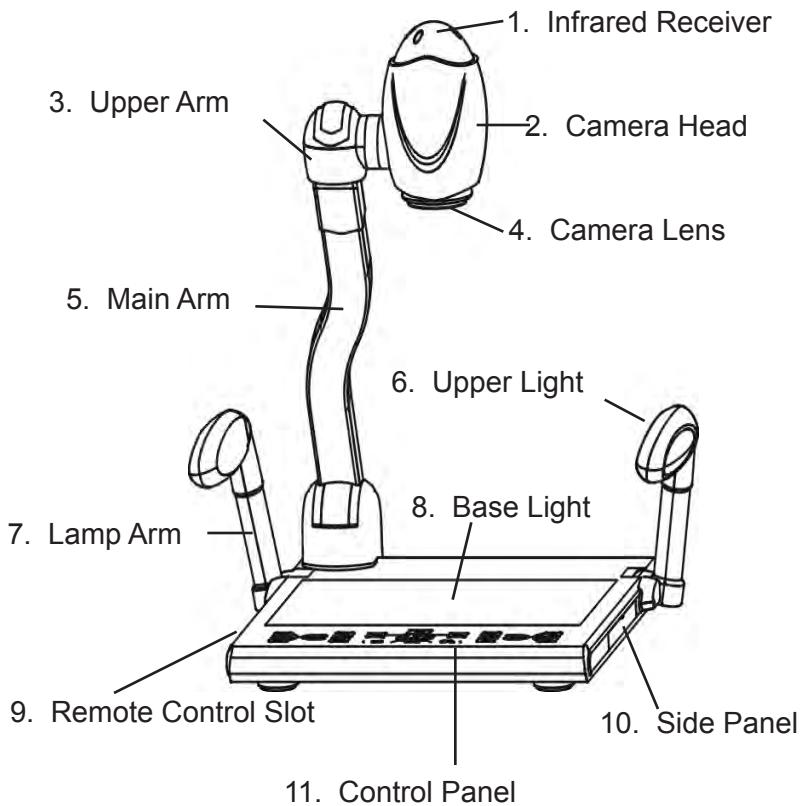


Power Adapter and Cord



Software CD

# 1. PART NAMES AND FUNCTIONS



## 1.1 CONTROL PANEL

13. 14. 15. 16. 12. 17. 18. 19. 20.



	Icon	Function
12.		Power On/Off
13.		Freeze
14.		Light Control
15.		Text and Picture Modes
16.		Output Display to PC Monitor
17.		Output Display to Projector
18.		Brightness Control
19.		Auto Focus
20.		Zoom In/Out
21.		Positive and Negative Modes
22.		Color and Black/White Modes
23.		Screen Division
24.		Rotate Image

## 1.2 BACK PANEL

The ports located at the back of the DiggiDitto™ allow connections to a variety of equipment—from computer monitors to projectors.

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34.



28. 30.

	Label	Function
25.	DC-IN-12V	Power Socket for the AC adaptor.
26.	RS 232	Serial Port. To control the document camera from a PC through the RS-232 cable.
27.	S-VIDEO	S-Video Output. Connects to TV or other display device; shows document camera images.
28.	VIDEO OUT	RCA Video Signal Output. Connects to TV or other display device; show document camera images.
29.	AUDIO OUT	Stereo Audio Output, PC Audio Output. Connects to speakers. May use converter for other audio connections.
30.	AUDIO IN	Stereo Audio Input. PC Audio Input. To transfer audio through document camera to connected speakers. May use converter to input other types of audio.
31.	PC RGB IN	RGB Inputs. May connect computers or other AV, to show that information through the document camera onto connected display screen.
32.	PC RGB OUT	RGB Outputs (also known as VGA). Connects to monitor, projector, or other display device; shows document camera images.
33.	PROJECTOR RGB OUT	RGB Outputs (also known as VGA). Connects to monitor, projector, or other display device; shows document camera images.
34.	USB	USB port. Images may be saved onto the computer through a USB cable.

## 1.3 SIDE PANEL

35.



36.



37.



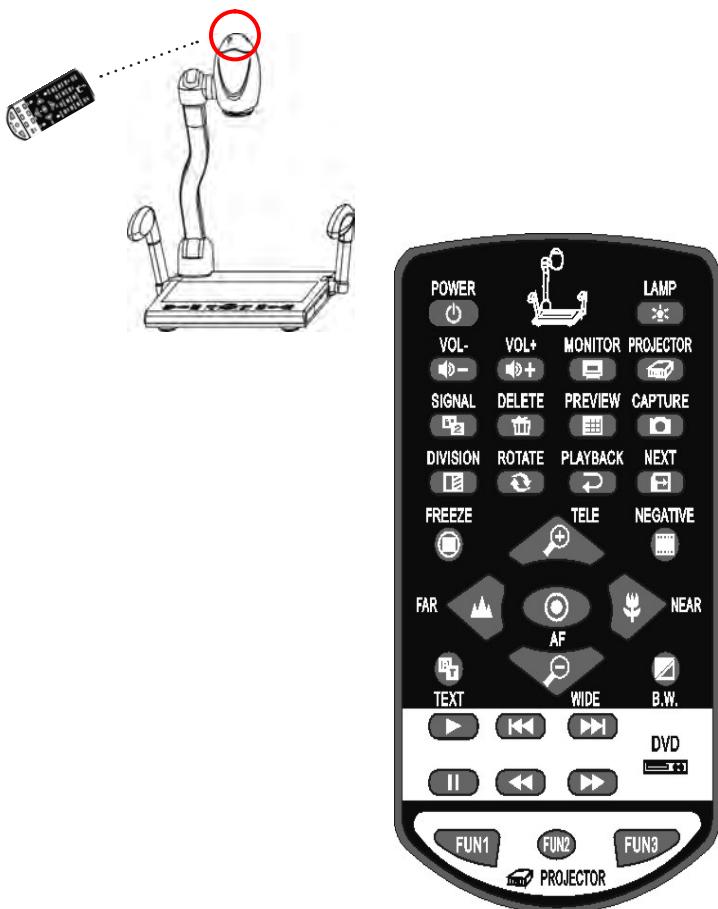
38.

A 3.5mm circular jack icon, labeled 'AUDIO IN' below it.

	Label	Function
35.	VOL	Microphone Volume Control
36.	MIC	Microphone input. May use converter to input other types of audio.
37.	RGB IN	RGB Input (VGA). May connect computers or other AV to show information through the document camera onto connected display screen.
38.	AUDIO IN	PC Audio Input. To transfer audio through document camera to connected speakers. May use converter to input other types of audio.

## 1.4 WIRELESS REMOTE CONTROL

The remote control is a convenient way to operate the document camera. Remember to point the remote control at the IR receiver located at the front base of the camera. Its receivable range is approximately six meters (19.6 feet).



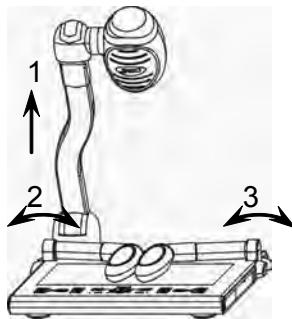
Icon	Label	Description
	POWER	Turn on/ Turn off or decode projector on.
	LAMP	On/ off of the visualiser lamps, or decode projector off.
	VOL+	Turn on the volume
	VOL-	Turn off the volume
	PREVIEW	Output Signal to display screen
	SHOOT-ING	Output Signal to projector or TV
	SIGNAL	RGB and AV signal output switch
	DIVISION	Freeze the left part of image to compare with the movable image on the right side
	ROTATE	Rotate the image
	FREEZE	Freeze the image shot by the camera
	NEGA-TIVE	Display image in positive or negative
	IMAGE/TEXT	Display image in text or image mode
	B/W	Display image in color or B/W
	CAPTURE	Store the exact image captured
	PREVIEW	Display image captured and stored
	NEXT	Choose next image to review or delete
	PLAY-BACK	Display stored image in full screen
	DELETE	Delete captured image

	TELE	Image zoom in
	WIDE	Image zoom out
	AF	Auto focus one time
	FAR	Adjust focus manually
	NEAR	Adjust focus manually

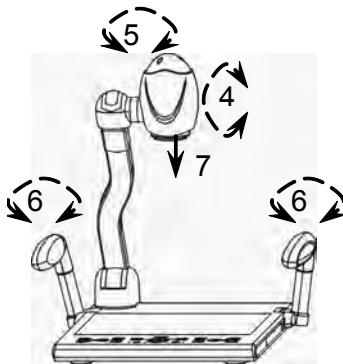


## 2. SETUP

- Raise the main arm vertically.
- Unfold the lighting arms until they reach the end position.

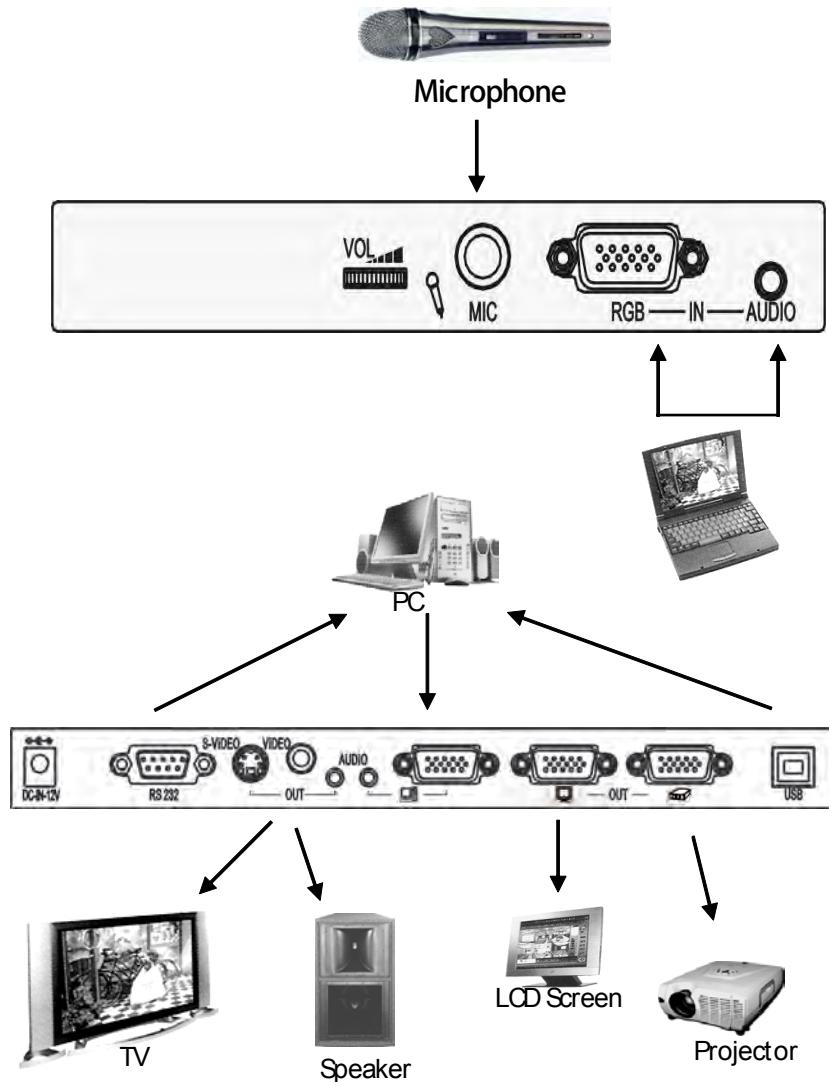


- Adjust the camera head and lighting arms.



## 2.1 CONNECTING CABLES

NOTE: Be sure to disconnect the power supplies of all units before making cable connections.



## 2.1.1 CONNECTING TO A DISPLAY DEVICE

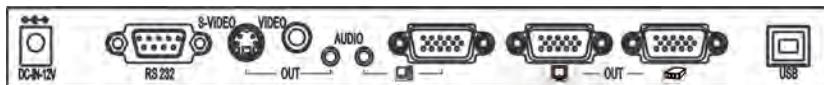
The DiggiDitto™ has the ability to show images through various display devices such as a projector, television, or computer monitor.

### 2.1.1.1 Connections Using a VGA (RGB) Cable

- Locate the VGA (RGB) 1 Output Port of the DiggiDitto™ (indicated below) and the VGA (RGB) Input Port of the display device.



- Using the provided VGA (RGB) cable, connect the VGA (RGB) Output Port of the DiggiDitto™ to the VGA (RGB) Input Port of the display device.
- A second display device may also be connected through the DiggiDitto™.



### 2.1.1.2 Connections Using an RCA Video Cable

A television, projector, or other display device can also be connected to the DiggiDitto™ using an RCA Video Cable.

- Using an RCA video cable, connect the Video Output Port of the DiggiDitto™ to the Video Input Port of the television or display device.

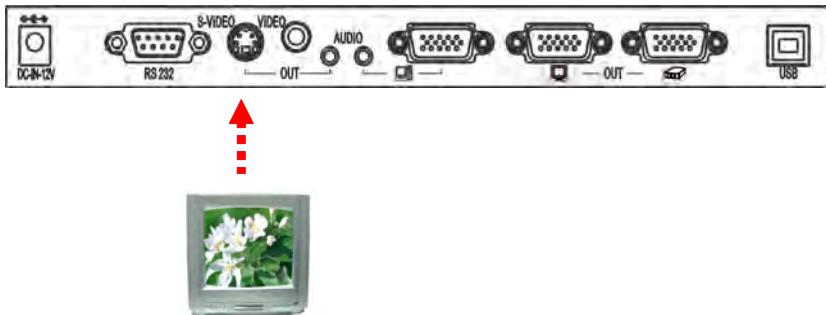


### 2.1.1.3 Connections Using an S-Video Cable

The S-Video connection provides a better video quality than the RCA Video Port.



- Using an S-Video cable, connect the Video Output Port of the DiggiDitto™ to the S-Video Input Port of the television or display device.



### 2.1.1.4 Multiple Connections

The DiggiDitto™ can be used to connect a variety of audio/visual and computer devices which can then be shown on a common display. Thus, the images from the different devices can be viewed alternately through the DiggiDitto™ on the display screen.

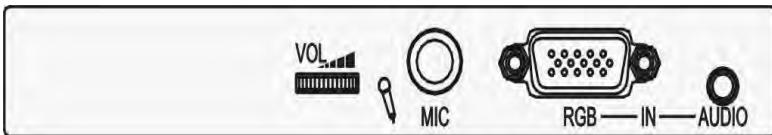
## 2.1.2 SPEAKERS AND MICROPHONE CONNECTIONS

A microphone may be connected to go through the DigiDitto™ outputting to connected speakers. The DigiDitto™ creates a karaoke effect, mixing audio sources as the microphone acts as a voice-over. Another audio source may be inputted (using Audio In).



- All power sources should be turned off before making cord connections.
- Connect speakers to Audio Out (labeled Audio Out on the rear panel).
- Plug in the microphone to MIC input located on the side panel.
- Adjust the volume to the desired setting.

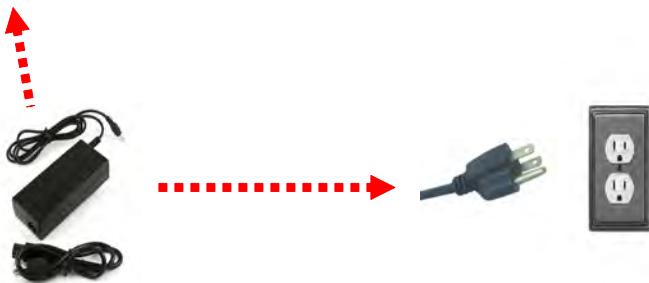


## 2.2 THE POWER CORD



Lastly, after making all connections, plug the power cord into the power cord receptacle of the document camera and the AC outlet.



## 3. BASIC OPERATION

The DiggiDitto™ DC896 may be controlled using the front panel, wireless remote control, or through the computer via USB or RS-232 connection.

### 3.1 SIMPLE INSTRUCTIONS FOR PRESENTING

1. After connecting the DiggiDitto™ to an accompanying display device (monitor, projector, etc.), turn ON the DiggiDitto™ power switch. The side lights will illuminate.



2. Place the object on the base. Adjust the image size using the zoom buttons on the front panel or remote control while watching the image on the display screen.



Zoom



3. On the control panel, press Auto Focus.



## 3.2 PRESENTING TRANSPARENCIES OR SLIDE FILM

1. After connecting the DiggiDitto™ to an accompanying display device (monitor, projector, etc.), turn ON the DiggiDitto™ power switch. The side lamps will light up.



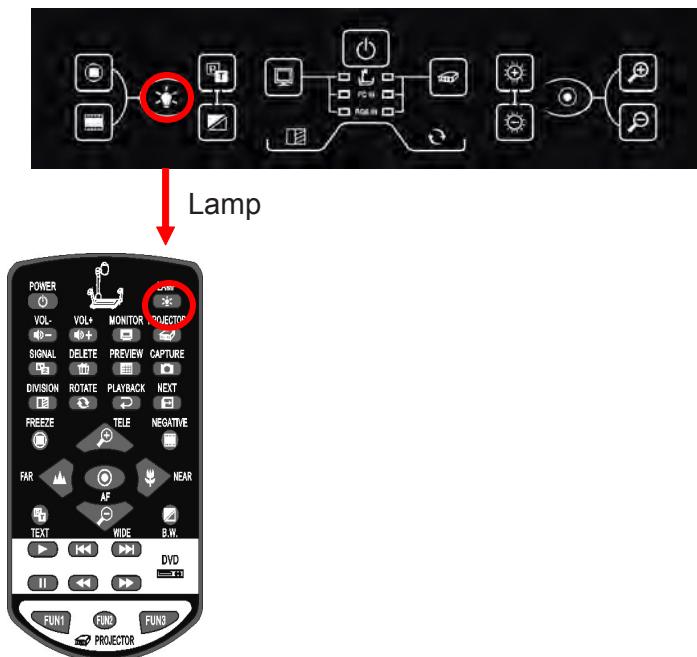
2. Press LAMP. The base light will illuminate and the side lamps will turn off.
3. If showing a negative film, press the P/N (Positive/Negative) button to change to Negative view. When ready, press again to return to Positive view.



Positive/Negative

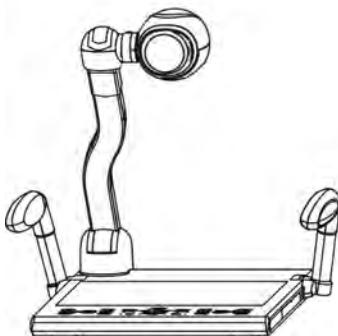


4. To turn off the base light press the LAMP button again. All lights will turn off. Press LAMP once again to turn side lights on.



### 3.3 ALTERNATE USE OF DIGGIDITTO™

Set the camera head to a horizontal position to shoot objects from a distance or if you are wanting to capture an image at a specific time.



## 4. DETAILED FUNCTIONS

### 4.1 DISPLAY INPUT SELECTION

To select the audio/visual input device to be shown on the display, press the

**Monitor**  or **Projector** 

button located on the front control panel or on the remote control. Press again to alternate input.



### 4.2 LIGHTING

The DiggiDitto™ uses environmentally friendly LEDs for the side and base lights. These LED bulbs require much less energy than standard incandescent light bulbs. LEDs can last for many years and rarely need to be replaced. LED lights also have the benefits of being rugged, generating very little heat, and not flickering! All of which are valuable features for classroom use.



The DiggiDitto™ has three light settings: Upper Light On, Base Light On, and All Lights Off. The Upper Light ON option illuminates printed materials and 3-dimensional objects, whereas the Base Light ON setting presents transparencies such as slides or negatives. If the natural environment light is sufficient, it may be desirable to use DiggiDitto™ with all lights turned off.

When the document camera is initially powered, the upper lights turn on by default. To change the setting press the

**Lamp**  button located on the front control panel or on the remote control. The light setting will change within a second or so. Please note that both the upper light and base light cannot be on simultaneously.

Upper Lights On → Base Light On → All Lights Off



## 4.3 ZOOM

The DiggiDitto™ has the ability to zoom in on an object up to ninety-six times its original size! This powerful zoom feature multiplies a 12x optical magnification together with a 9x digital enlargement, allowing for incredibly detailed viewing. Press

the **ZOOM+**  or **ZOOM-**  button on the front control panel or remote control to adjust the view. Pressing ZOOM continuously speeds up the function.



After zooming, the DiggiDitto™ Auto Focus is activated although it may be necessary to manually adjust the focus and brightness.



## 4.4 FOCUSING

The focus may be adjusted automatically or manually. Press

**Auto Focus**  on the DigiDiitto™ front control panel for automatic focus or use the remote to control the focus incrementally.



## 4.5 COLOR AND BLACK & WHITE OPTIONS

It is also possible to convert the display image to black and white. Simply press the

**Black & White** button .



## 4.6 POSITIVE/NEGATIVE CONVERSION

An image can be converted to show a negative image. Press the P/N button located on the control panel or on the remote control. To return to the normal mode press P/N once again.



## 4.7 TEXT/DYNAMIC MODES

The Dynamic Mode enhances the clarity of live picture movements. Choose this mode when presenting demonstrations or 3-dimensional objects. The default setting of the DiggiDitto™ is in Dynamic Mode.

To improve the look of black and white text driven documents,

select the Text Mode by pressing the **Text**  button on the front panel, or Text on the remote control. This will produce a crisper image of the copy. Press again to return to Dynamic Mode.



## 4.8 ROTATE

The DiggiDitto™ can create mirror images as well. This may be done by pressing Rotate on the front control panel or on the remote control. The first mirror image is flipped on a horizontal axis. If the mirror function is pressed again the image will be flipped its the vertical axis. Press mirror once again to return to the normal view.



Original Picture

Flipped on a horizontal axis.

Flipped on a vertical axis.



## 4.9 SCREEN DIVISION

The DiggiDitto™ display screen can be split into two images where the right side shows a frozen picture and the left presents a live image shot. This view is very helpful for comparisons. Simply



press the  **Division** button on the front control panel, or the Division button on the remote control to obtain the divided view.

The image on the left of the split screen can be flipped to show the mirror image. While in Screen Division mode, follow the same instructions above on how to use the mirror image feature.



## 5. CONNECTING TO A COMPUTER

A computer may be connected to the DiggiDitto™ for two separate uses:

- To save endless pictures using the USB connection and
- As a method to control the functions of the DiggiDitto™ using USB or RS-232 connections.

### 5.1 USB CONNECTION WITH EZPREVIEW 1.0

The DiggiDitto™ may save images onto your computer and control the document camera via an USB connection.



## 5.1.1 EZPREVIEW 1.0 INSTALLATION

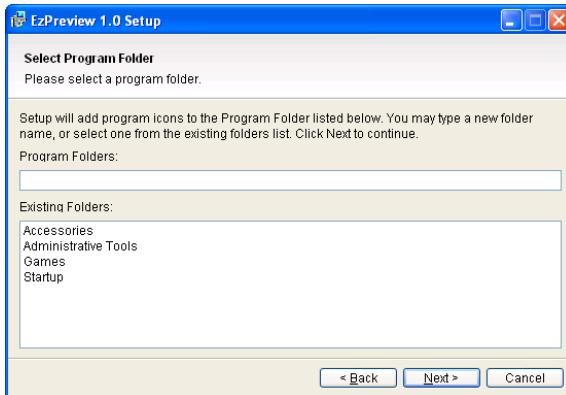
### 5.1.1.1 Set up applications

Insert the accompanying DiggiDitto™ CD into the computer to upload the corresponding software. Double click “EzPreview.exe” from the software bundle.

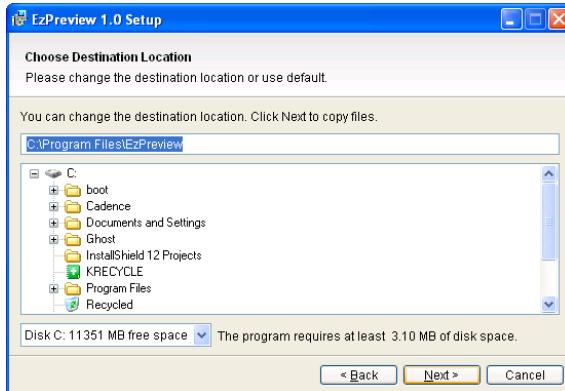
The installation image will be shown; click “Next.”



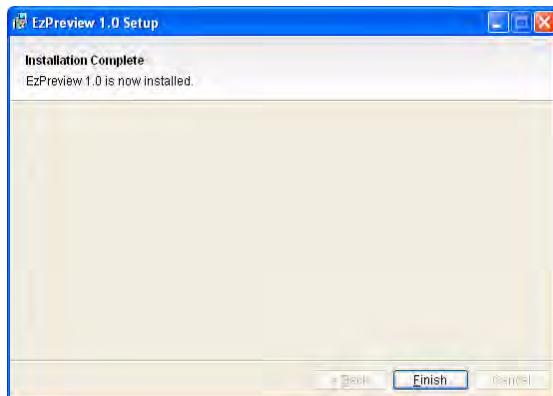
Choose a Folder Name; click “Next.”



A dialog box displaying “Choose Destination Location” will appear. Choose the location “C:\Program Files\EzPreview.” Enter this location or choose the target location to install; click “Next.”



The “Installation Complete” window will appear; click “Finish.”

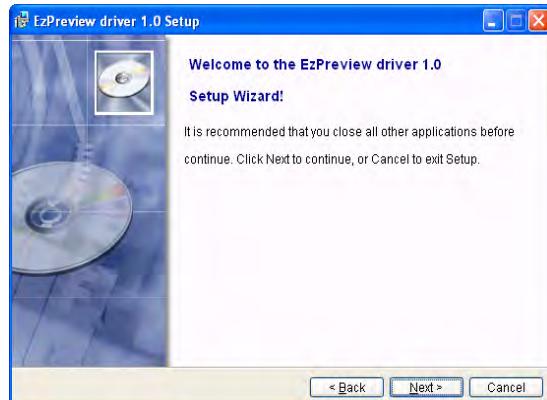


### 5.1.1.2 Driver Installation

Double click “EzPreview driver.exe”



The Installation window will appear; click “Next.”



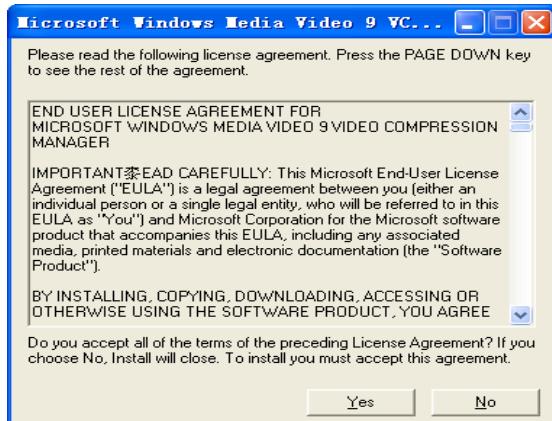
The Installation complete window will appear; click "Finish" to end the driver installation.



Click "Yes" to install the VCM interface.



Choose "Yes" to agree to the license agreement.



Select the installation path then select “OK.” The installation is complete; click “OK.”



Connect the USB line to the computer.

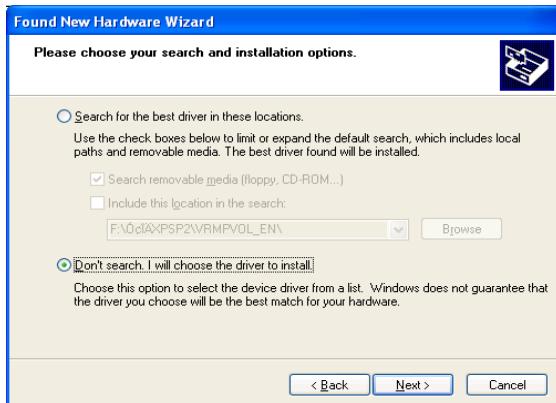
The “Found New Hardware” dialog box will appear. Choose “No, not this time” and click “Next.”

The Interface hardware installation wizard will appear; choose “from a list or specific location (Advanced) (S)” option and click “Next.”

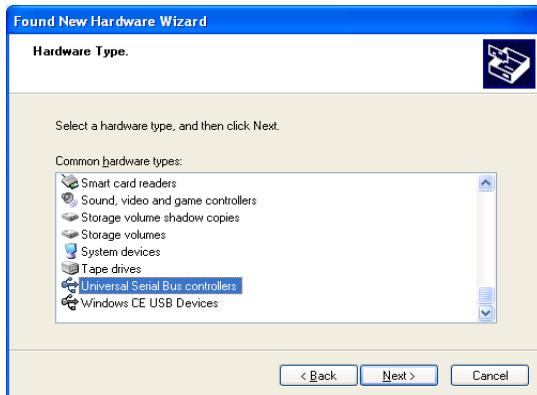




Select search and installation options. Choose “Do not search. I will choose the driver to install (D),” and click “Next.”



Select the type of hardware interface appears. Choose “Universal Serial Bus Controllers” and click “Next.”



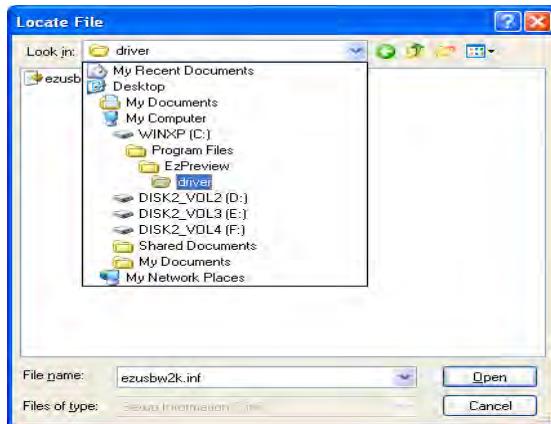
Choose to install the device driver selection interface, and click on “Have Disk” button.



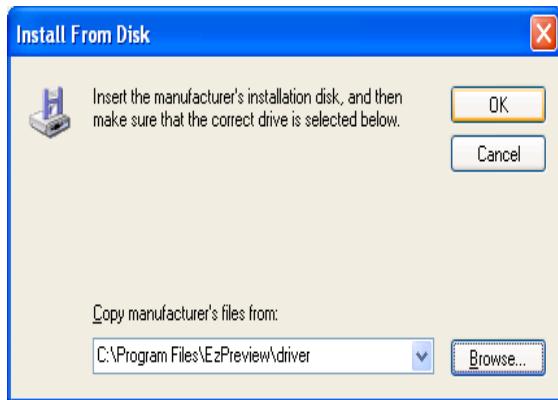
Click the “Browse” button to find the documents dialog box



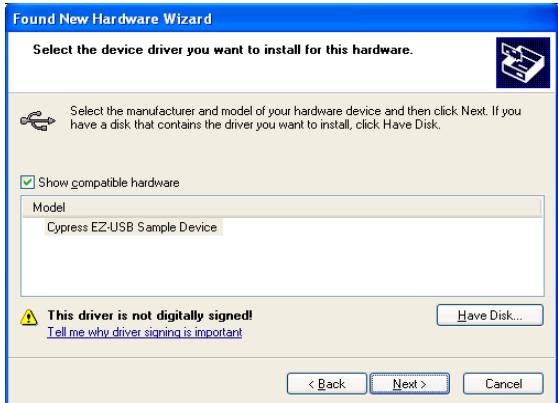
Choose “path 1” (default is C:\ Program Files \ EzPreview) and select the file “ezusbw2k.inf.” Click “Open.”



Click “OK.”



At this time, select the hardware device driver installation interface; click “Next.”



A Safety tips screen will appear; click “Continue Anyway.”



The installation is complete interface click “complete” to end.

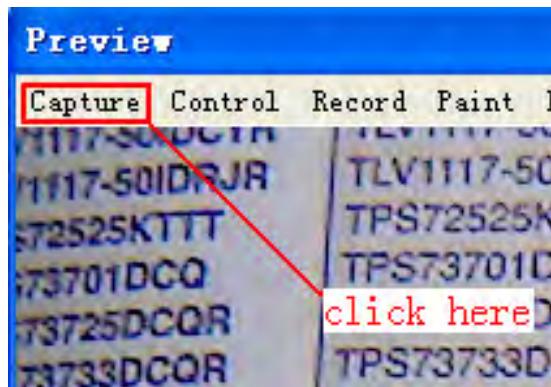
### 5.1.2 USING EZPREVIEW CONTROLS

Connect the document camera to the computer with the provided USB cable. The flat (Type A) connector fits to the computer; the squared (Type B) connector attaches to the DigiDitto™. Power on the document camera.

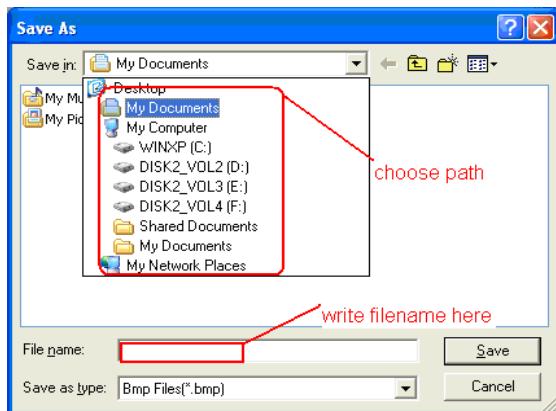
Open EzPreview by clicking on the shortcut located on the desktop.

### 5.1.2.1 Saving an Image

To save an image, select “Capture.”

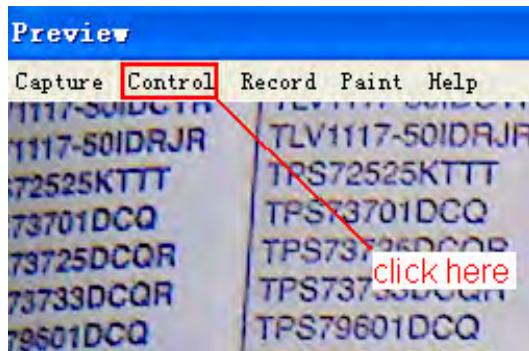


“Save as” will appear. Choose the image location enter a file name, then click “Save.”

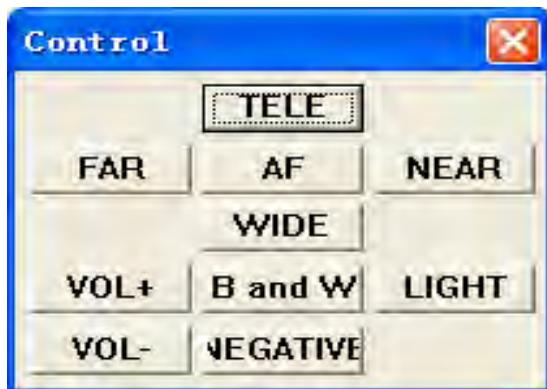


### 5.1.2.2 Control

Click the left top corner “Control.”



It is now possible to control the DiggiDitto™ with the corresponding operations.



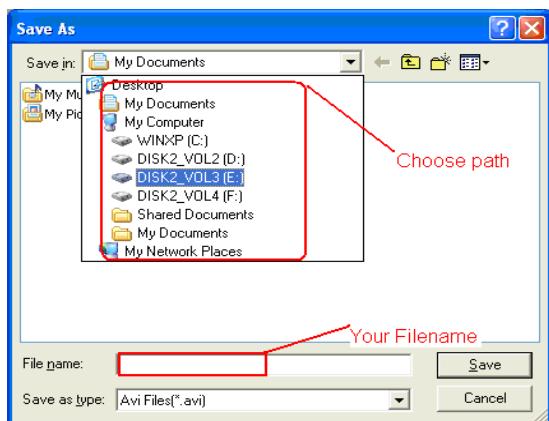
### 5.1.2.3 Recording Video

Click on “Record” then “Start Record.” Press “Finish Record” when done.

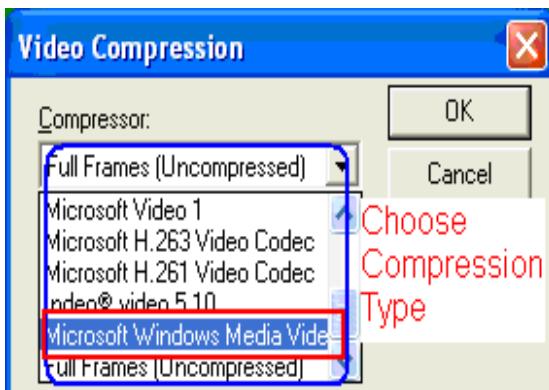
Preview					
Capture	Control	Record	Paint	Help	
		Start Record			
HDCQ					
SDCQR		Finish Record			
SDCQR					
IDCO					
IDCQR					
KTTT					
DCQ					
DCQ					
DCQR					

It is then possible to save the recording.

When the video is complete or you want to stop the recording, click on the end of the video

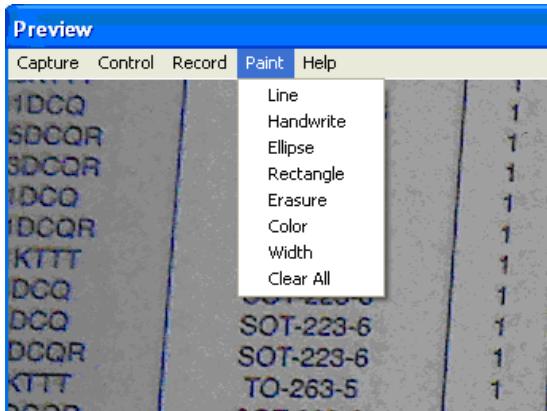


A drop-down menu appears in the compressed format selection dialog box. Select a compression format as shown in picture (e.g. "Microsoft Windows Media Video 9"). If you do not need compression, select "full-frame (non-compressed)," another option in the menu; click OK" to start the video. ”



#### 5.1.2.4 Annotation

To draw on the picture, press “Paint.”

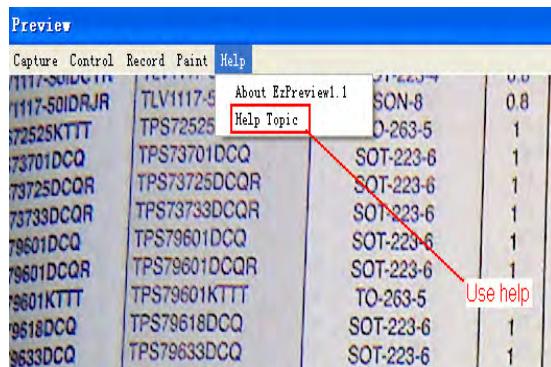


Select the kind of brush, width, and color.

159	E20	BI	SD_DL
160	D18	BI	SD_DH
184	B11	BI	SD_DH
185	A11	BI	SD_DH
186	<u>D10</u>	BI	SD_DH
188	C10	BI	SD_DL
190	B10	BI	SD_DL
191	A10	BI	SD_DL
192	D9	BI	SD_DL
193	C9	BI	SD_DL
196	B9	BI	SD_DL
197	A9	BI	SD_DL
198	D8	BI	SD_DL
199	C8	BI	SD_DL

### 5.1.3 HELP

Help provides useful topics in case you need them.



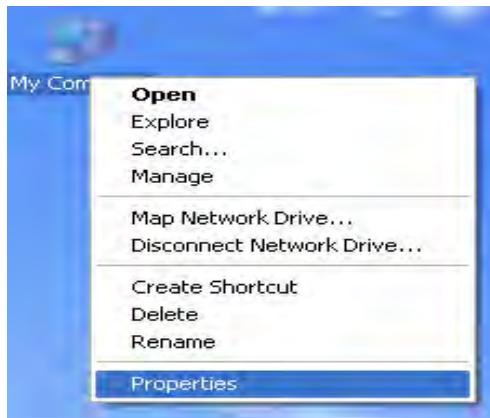
### 5.1.4 TROUBLESHOOTING WITH EZPREVIEW

- Device can not be recognized

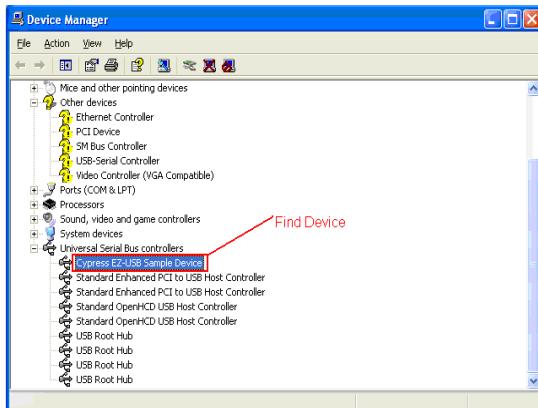
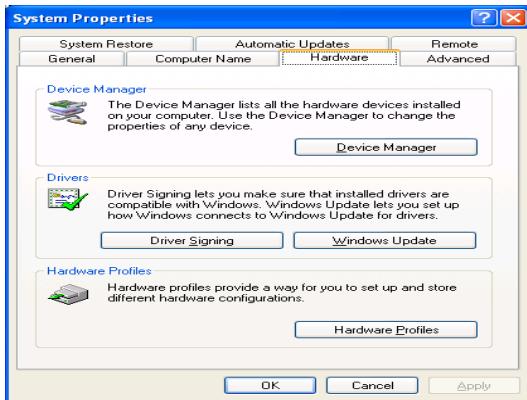
Check if the USB cable is connected to the backside.

- No image

Check if the driver is installed correctly. Right click "My Computer -> Properties."



Next, choose “Hardware” and then “Device Manager.” The “Device Manager” window comes up. If the “Cypress Ez-USB Sample Device” is located under the “Universal Serial Bus Controllers” which indicates that the device is correctly installed. If it is not displayed under the “Universal Serial Bus Controllers”, check to see if the DiggiDitto™ is connected correctly or if it is powered on. If it is still not working, install the driver again.



## 5.2 INSTALLING THE RS-232 SOFTWARE

### 5.2.1 RS-232 CONNECTION

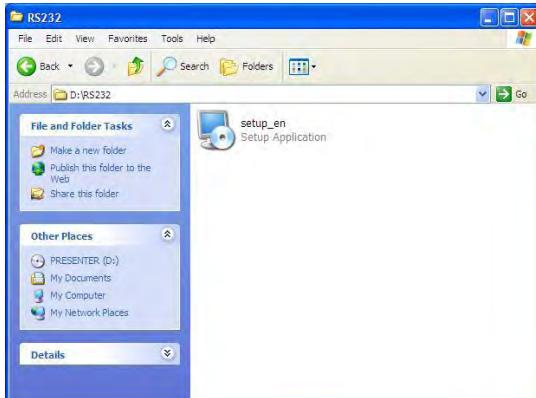


DiggiDitto™ may be controlled using the front panel, wireless remote control, or through the computer through an RS-232 connection.

Disconnect the DiggiDitto™ from the computer.

Insert the accompanying DiggiDitto™ CD into the computer to download the corresponding software.

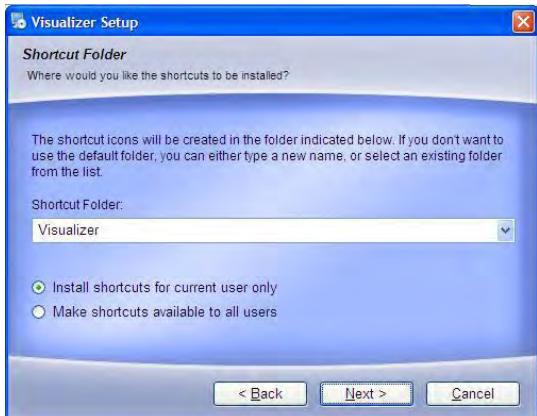
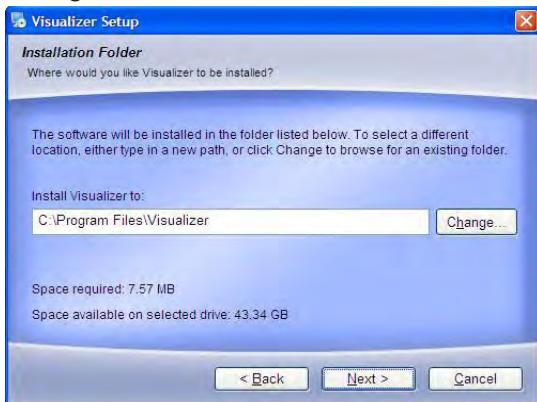
Click on the DiggiDitto™ RS-232 setup icon.



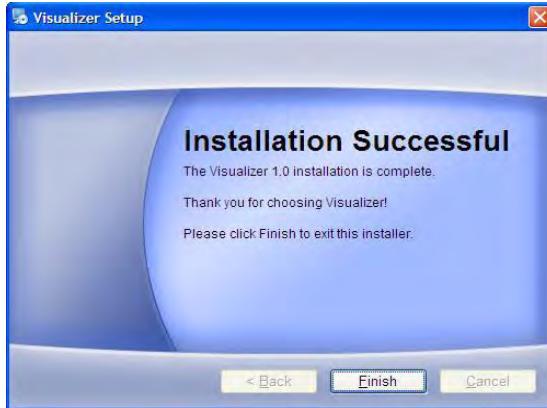
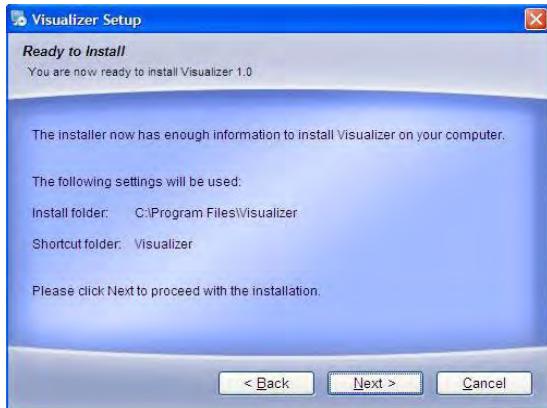
Follow the screen instructions to install.



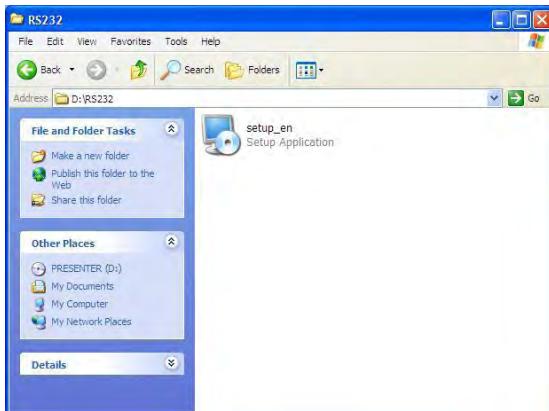
Select the destination of the files. Press Next for the default location or Change to choose a location.



Follow the steps to complete the installation.



Make sure both the DigiDitto™ and the computer are turned off. Connect the document camera to the PC with the included RS-232 cable.



Turn on the PC, and click on the DigiDitto™ icon. DigiDitto™ can now be controlled using the PC.



## 5.2.2 SERIAL PORTS

If there are multiple units connected to the PC, select “Serial Port” to choose the port to control the document camera.



## 5.2.3 PROJECTOR SETUP

To control a projector through the DiggiDitto™ using the RS-232, the projector needs to be programmed by the following steps.

To program the projector code, select “Setup” then “Projector RS-232C Code.”



The following box will appear:





1. Select whether it is a name brand projector or if a custom code is needed
2. Choose the projector brand
3. Choose the projector model
4. Set the function
5. Enter the code
6. Press "Write"

If this software did not list the brand of projector or if there is no reference type, set up the following:



1. Select the custom code
2. Select the code form
3. Choose the baud rate
4. Set the function
5. Enter the code
6. Press "Write"

The projector may be programmed to turn off at a delayed time.



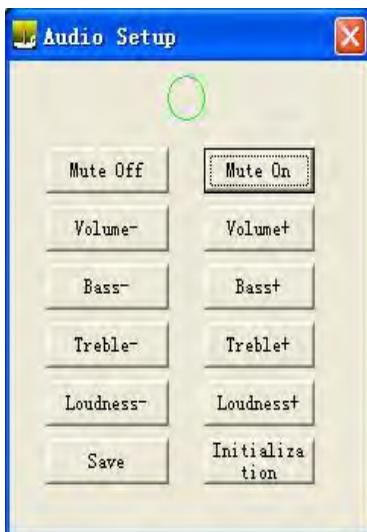
1. Select the delay time
2. Press "Set"

#### 5.2.4 AUDIO SETUP

The audio of the DigiDitto™ may be set up. From the Setup menu, press "Audio Setup."



The following window will appear:

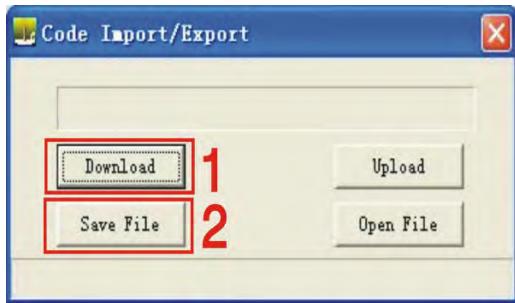


### 5.2.5 CODE IMPORT/EXPORT

Once the setup has been completed these settings may be saved and then imported/exported to save time.

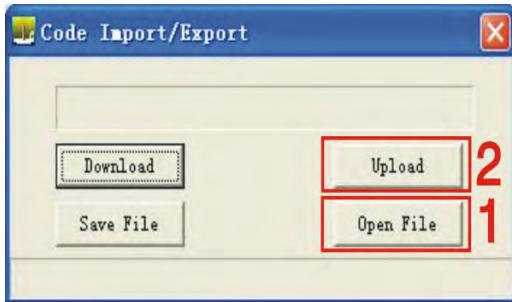
Open the Setup tab and select “Code Import/Export.”





1. Press "Download"; wait for the process to finish.
2. Press "Save File."

If there is mistake in the setup process or if many modes of visualization must be set up, operate the following:

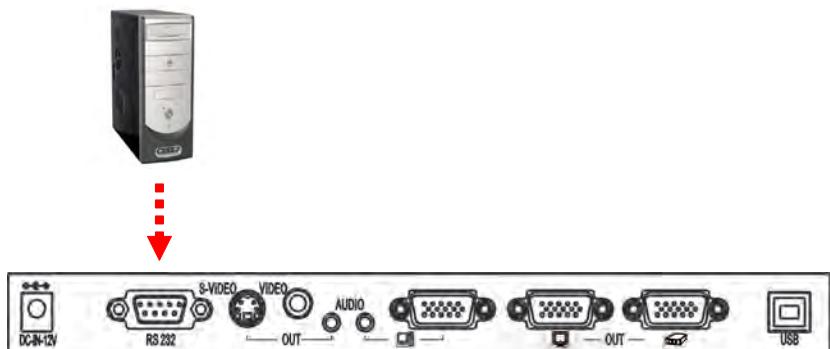


Step 1: Press "Open File;" open the file which has been saved as .bin.

Step 2: Press "Upload" and wait for the process to finish.

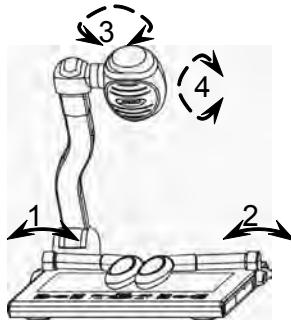
Step 3: If you want to set up many different visualization displays, repeat Step 2.

1. Make sure both the DiggiDitto™ and the computer are turned off. Connect the document camera to the PC with the included RS-232 cable.
2. Turn on the PC and click on the DiggiDitto™ icon. Your DiggiDitto™ can now be controlled using the PC.

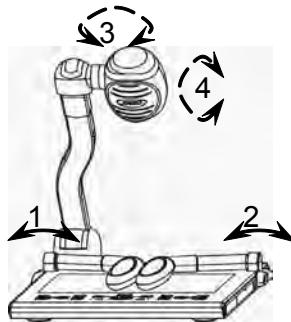


## 6. STORAGE

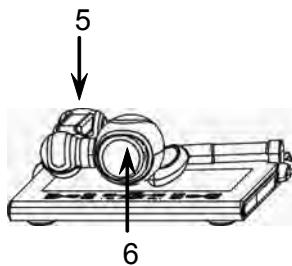
- Fold the lighting arms down until they reach the end position.



- Rotate the camera head back.



- Fold the head and connecting arm down.



## 7. TROUBLESHOOTING

### How is the remote control battery replaced?

The DiggiDitto™ remote control uses a CR2025 battery which can be purchased at most electronics stores. To change the battery:



1. Turn over the remote control so that the back side faces up.
2. Push in the notch located on the side of the battery holder and pull.
3. Replace with a new CR2025 battery.

### Why is there no image?

- Make sure the cables and power cord are properly connected. Check to make sure the power switch is turned on. It's also possible that the fuse needs to be replaced.

### The image is bending; how is a straight image obtained?

- Adjust the camera position.

### Why is the image out of focus?

- The object may be too close to the lens.
- The Focus may be at the maximum Zoom setting. Press Zoom —.
- Try pressing Auto Focus.
- If you are in a damp climate, moisture may accumulate on the lens. It will disappear gradually as the equipment warms up.

### Why is the image so dark?

- Lighting may be insufficient. Press LAMP to activate the side lights then increase the brightness level.

## 8. TABLES AND CHARTS

### 8.1 FUNCTIONS AND THEIR CONTROL DEVICES

Function	Front Control Panel	Remote Control	RS-232	USB
Power		Power	Power	
Light Control		Lamp	Lamp	Lamp
Zoom In/Out		Tele/Wide	Zoom +/-	Tele/Wide
Brightness Control			Bright-ness +/-	
Freeze		Freeze	Freeze	
Rotate		Rotate	Rotate	
Text/ Picture Modes		Text	Text	
Positive/ Negative Modes		Negative	Negative	Negative
Color and Black/ White Modes		B.W.	B.W.	B.W.
Volume Control		Vol +/-	Vol +/-	Vol +/-
Auto Focus		AF		AF
Manual Focus		Near/Far		Near/Far
Signal		Signal		Signal

Ouput Display Selection	 	Monitor, Projector		Monitor, Projector
Fun 1, 2, 3		x	x	
Not appl: Preview, Capture, Playback, Next, De- lete		x	x	
DVD: play, pause, next, previ- ous, ff, rew		x	x	
DVD cont: Menu, esc, enter, stop			x	

## 8.2 SPECIFICATIONS

Compatible Operating Systems	Windows 98/2000/NT/ME/XP, Vista 32-bit, Windows 7 32-bit
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Optics	Camera	F1.6~3.7, f3.9~85.8mm
	Shooting Area	357*280
	Zoom	Optics zoom>=12 ,Digital zoom>=8
	Focus	Auto /Manual
	Aperture	Auto
Video System	Image Apparatus	1/3" Image Sensor
	Total Pixels	1,300,000
	Horizontal clarity	>=750TV line
	SNR	>=50dB
	White Balance	Auto/Manual
	Comparison	>=2 separate screen
Multimedia Function	Function	W/B, negative/positive, mirror image, text, Brightness modulation, freeze, preview/shooting, electric volume control.
	Direct Connection Without Boot-strap Signal	When PC signal enter into visual presenter, would continually enter the display, and no need start the system.
Illumination	Assistant lamp	LED
	Baselight	LED
Input	AV part	Microphone input*1

	VGA part	RGB*2 (3 routes matrix switch) Audio frequency (stereo)*2
	RS-232	Computer control*1
	AV part	Video*1 S-Video * 1
	VGA part	RGB*2 (Matrix output) Audio frequency(stereo)*1
	RS-232	Control of the projector or other*1 equipment* 1
	CON	Infrared emission* 2
	Power supply	DC 12V 1.5A
	PAL	2:1 line-to-line scan
	VGA line-to-line scan	1280*1024
	Control Modes	Control panel, remote controller, RS-232 control software
Camera Rotation Angle		350 angle horizontally, 350 angle vertically
Size (W*D*H)	Set up	470*435*520mm
	Folded	490*493*140mm
Weight		5 KGS
Power	Power	DC 12V 3A
	Energy Consumption	<= 15W



## DiggiDitto™ DC896 Document Camera

### Warranty

Califone® warrants the DC896 to be free from defective material and workmanship for two years from the purchase date. Our “Project Intercept” Customer Satisfaction program will replace defective parts and repair malfunctioning equipment under this warranty if the defect occurs under normal use.

#### All Damage Claims Must Be Made With the Freight Carrier

Notify the freight carrier immediately if you observe any damage to the shipping carton or product. Repack the unit in the carton and await inspection by the carrier’s claim agent. Notify your dealer of the pending freight claim.

#### Returning Your Unit for Service or Repairs

Should your unit require service, contact our Customer Service Department online at [califone.com/techsupport](http://califone.com/techsupport), via email at [warranty@califone.com](mailto:warranty@califone.com), or by phone at 800-722-0500 / 818-407-2400 (international customers) to first obtain an RA (Return Authorization) number before returning it to Califone®. The unit must be returned to our factory via prepaid transportation only after the factory issues an RA number which must be clearly written on the outside of the box.

Califone® International, Inc.  
1145 Arroyo Avenue, #A  
San Fernando, CA 91340 USA

Toll Free 800.722.0500 | Toll Free Fax 877.402.2248  
International Customers call 818.407.2400 or Fax  
818.407.2405  
[califone.com](http://califone.com)